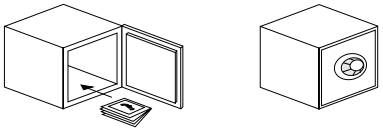
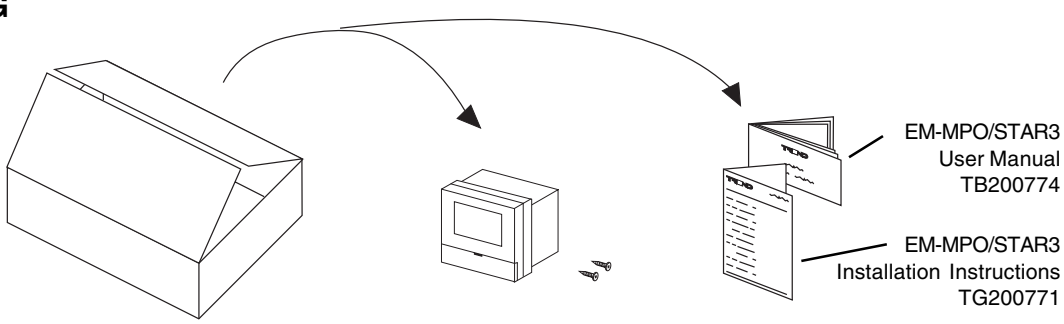
Installation Instructions

EM-MPO/STAR3
Electricity Meter

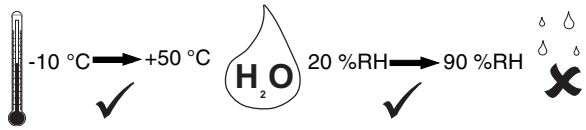
Important: Retain these instructions



UNPACKING



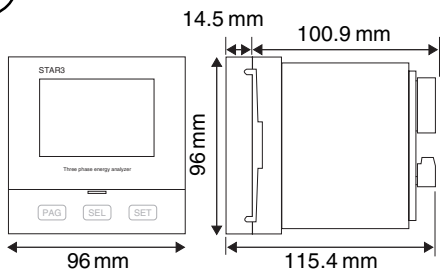
STORING

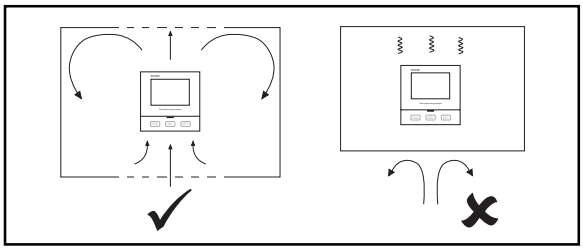


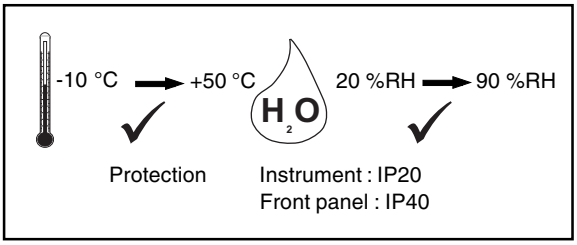
It is recommended that the installation should comply with the HSE Memorandum of Guidance on Electricity at Work Regulations 1989.

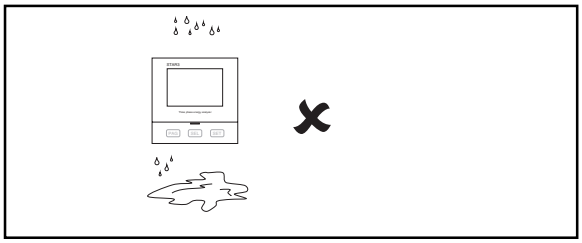
INSTALLATION

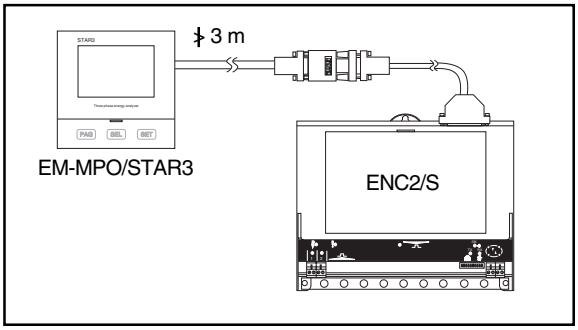
1 Choose the Location

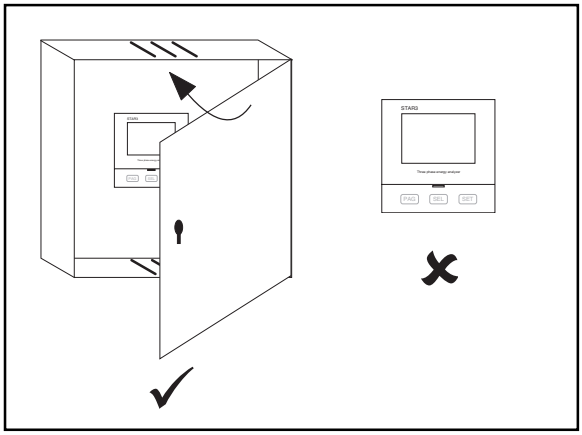








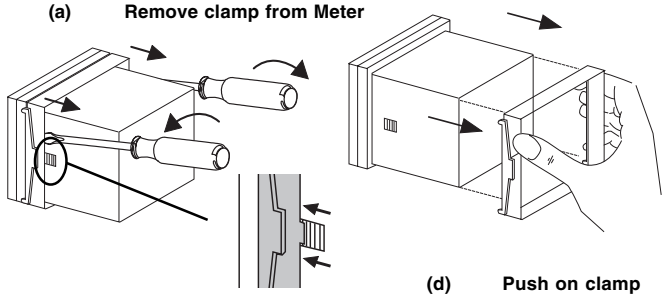




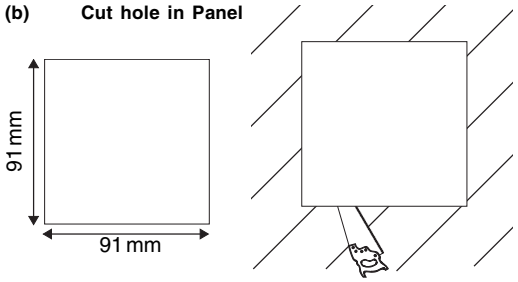
INSTALLATION (continued)

2 Mount on Panel

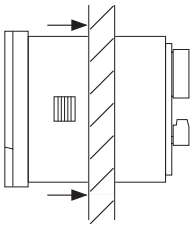
(a) Remove clamp from Meter



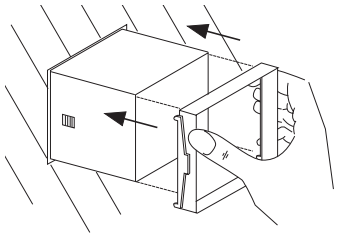
(b) Cut hole in Panel



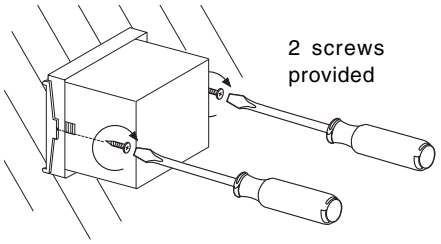
(c) Push meter through hole



(d) Push on clamp



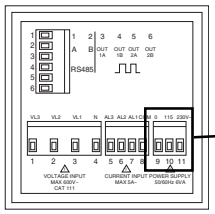
(e) Tighten clamp screws



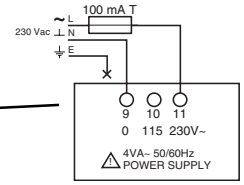
3 Connect Power to Meter

Two part screw terminal, maximum cable cross section 2.5 mm²

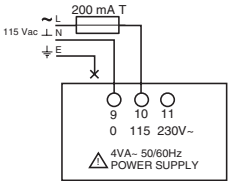
rear view

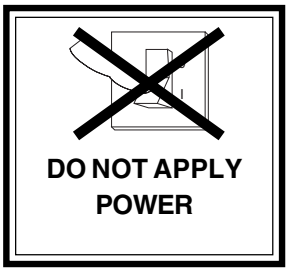


230 Vac +15 % -20 %, 35 to 400 Hz, 4VA Supply



115 Vac +15 % -20 %, 35 to 400 Hz, 4VA Supply



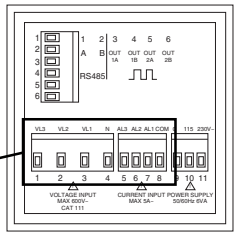


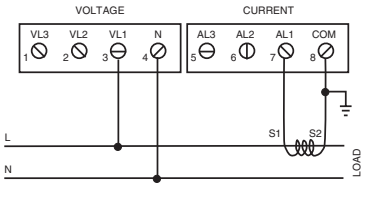
Note that this instrument does not require an earth connection

4 Connect Measurement Connections

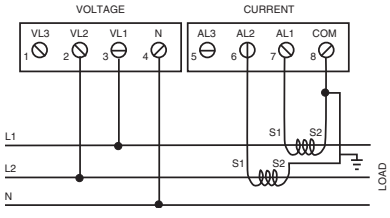
Two part screw terminals, maximum cable cross section area 2.5 mm²

ABSOLUTE MAXIMUM CURRENT 5 A~
ABSOLUTE MAXIMUM VOLTAGE 600 V~

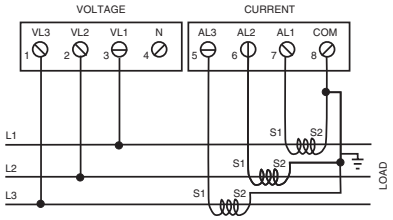




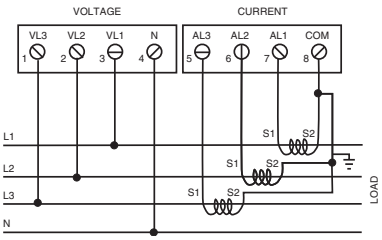
Single Phase with Neutral



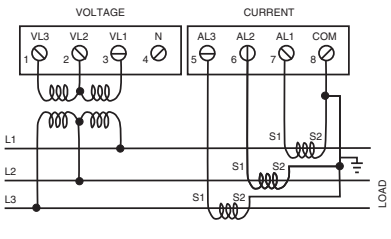
2 Phase with Neutral



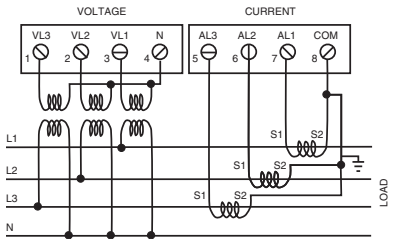
3 Phase without Neutral (Delta)



3 Phase with Neutral (Star)



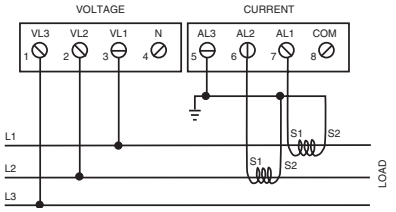
3 Phase without Neutral (Delta) using 2VTs



3 Phase with Neutral (Star) using 3CTs

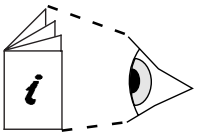
INSTALLATION (continued)

4 Connect Measurement Connections (continued)



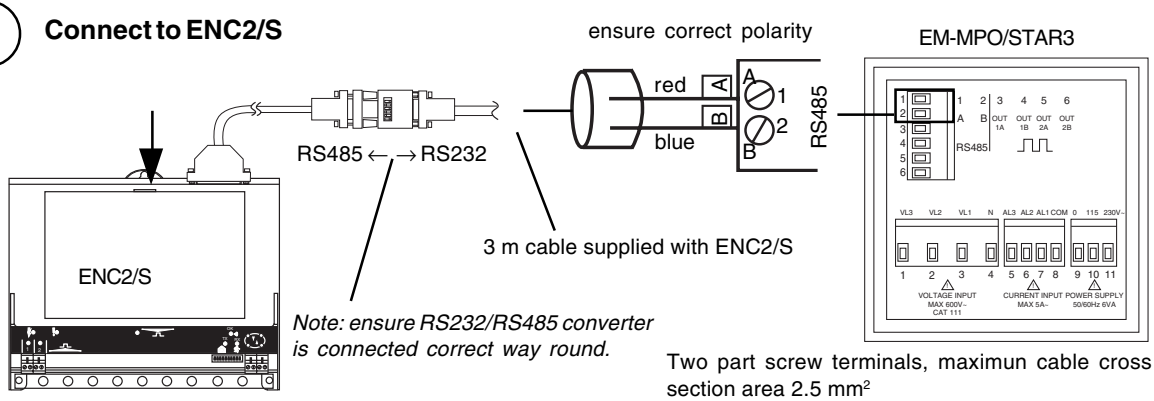
3 Phase without Neutral (Delta) using 2CTs

5 Fix ENC2/S



NBOX/ENC2/S
Installation Instructions
Sheet 1, Fixing
TG200270

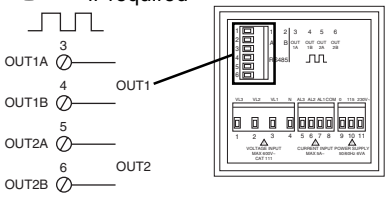
6 Connect to ENC2/S



Two part screw terminals, maximun cable cross section area 2.5 mm²

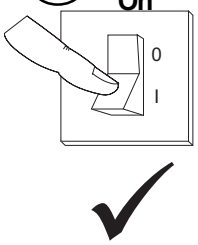
7 Connect Digital Outputs

if required

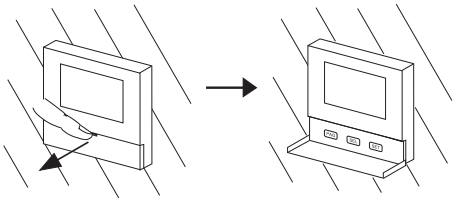


Two part screw terminals, maximum cable cross section area 2.5 mm²

8 Switch On

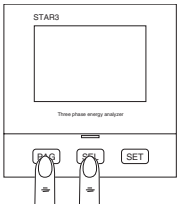


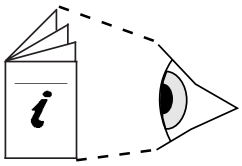
9 Open Flap



10 Configure Meter

PAG + SEL





EM-MPO/STAR3
User Manual TB200774

PAG

Pages	Parameters	Default	Note
VT Ratio	primary: secondary VT ratio	100:100	1
CT Ratio	primary: secondary CT ratio	5:5	2
Integration Period	Integration time for Average Power and Current	15 mins	
Reset Counters	resets kWh, kVArh, kVAh	no	
Reset Averages and Peaks		no	
Cogeneration	to measure energy supplied back into mains yes/no	no	
Connect type	3PH (Delta), 3PH And n (Star), 2PH (Diphase), 1PH (Single Phase)	3PH And n	3
RS485	Baud rate	default for ENC2/S baud rate: 9.6 (9k6)	4
	Parity	default for ENC2/S parity:n (none)	
	Protocol	protocol:IEEE **MUST CHANGE PROTOCOL TO ASCI I**	5
Address	RS485 address	default for ENC2/S: 1	4

1 Default (100:100) for direct connect. Set up correct ratio if VT used.
2 Default (5:5) for direct connection. Set up correct ratio for CT used.
3 Change to match connection in step 4 above.
4 Default set for ENC2/S. Change back if it has been modified.
5 **THE PROTOCOL MUST BE CHANGED TO ASCII**

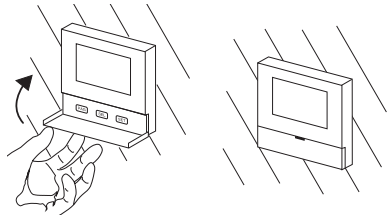
INSTALLATION (continued)

10 Configure Meter (continued)

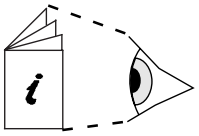
Pressing PAG again steps on to outputs below

OUTPUTS Page	Setting
Pulse Mode 100 mS Pulse Mode 20 mA	101 SEC PLS 002 SEC PLS Selects 100 mS or 20 mS pulse mode for both outputs Then for each output Out1, Out2 select: kWh total kWh total COG kVArh total kVArh total COG kVAh Then for each output PLS1, PLS2 select units per pulse 1, 10, 100 (e.g. =for kWh,1 pulse = 1 kWh, 10 kWh, 100 kWh)
Relay Mode	Selects relay mode for both outputs For Out1 only - Can set it to be remotely operated for RS485 (not used with ENC2/S) Select parameter from which to generate alarms (see data sheet) For each Output, Out1, Out2 Set high alarm level Out n H Set low alarm level Out n L Set hystersis (00 to 99 %) Hst n Set delay (000 to 999s) dLy n

11 Close flap



12 Configure ENC2/S



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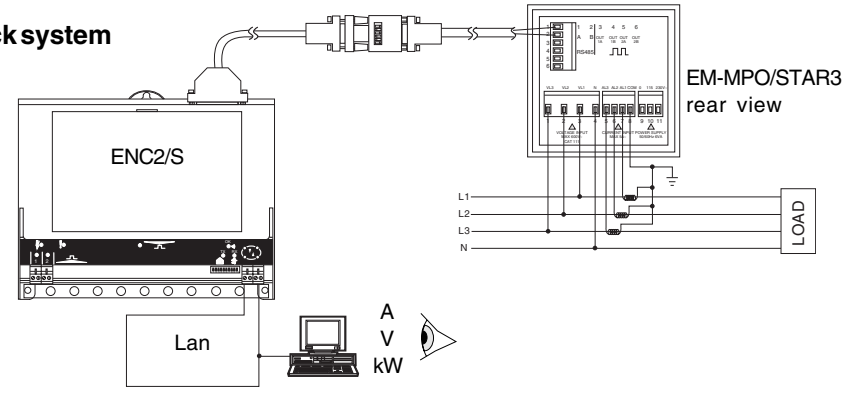
Installation Instructions
Sheet 2, Configuration
TG200270

13 Check system



DISPOSAL

WEEE Directive :

At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre.
Do not dispose of with normal household waste.
Do not burn.

Trend Control Systems Ltd reserves the right to revise this publication from time to time and make changes to the content hereof without obligation to notify any person of such revisions or changes.

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